KIES, APS, APS-R, DTS U-2 FE Status
MASINT Cell Status

29 July 2004

Raytheon

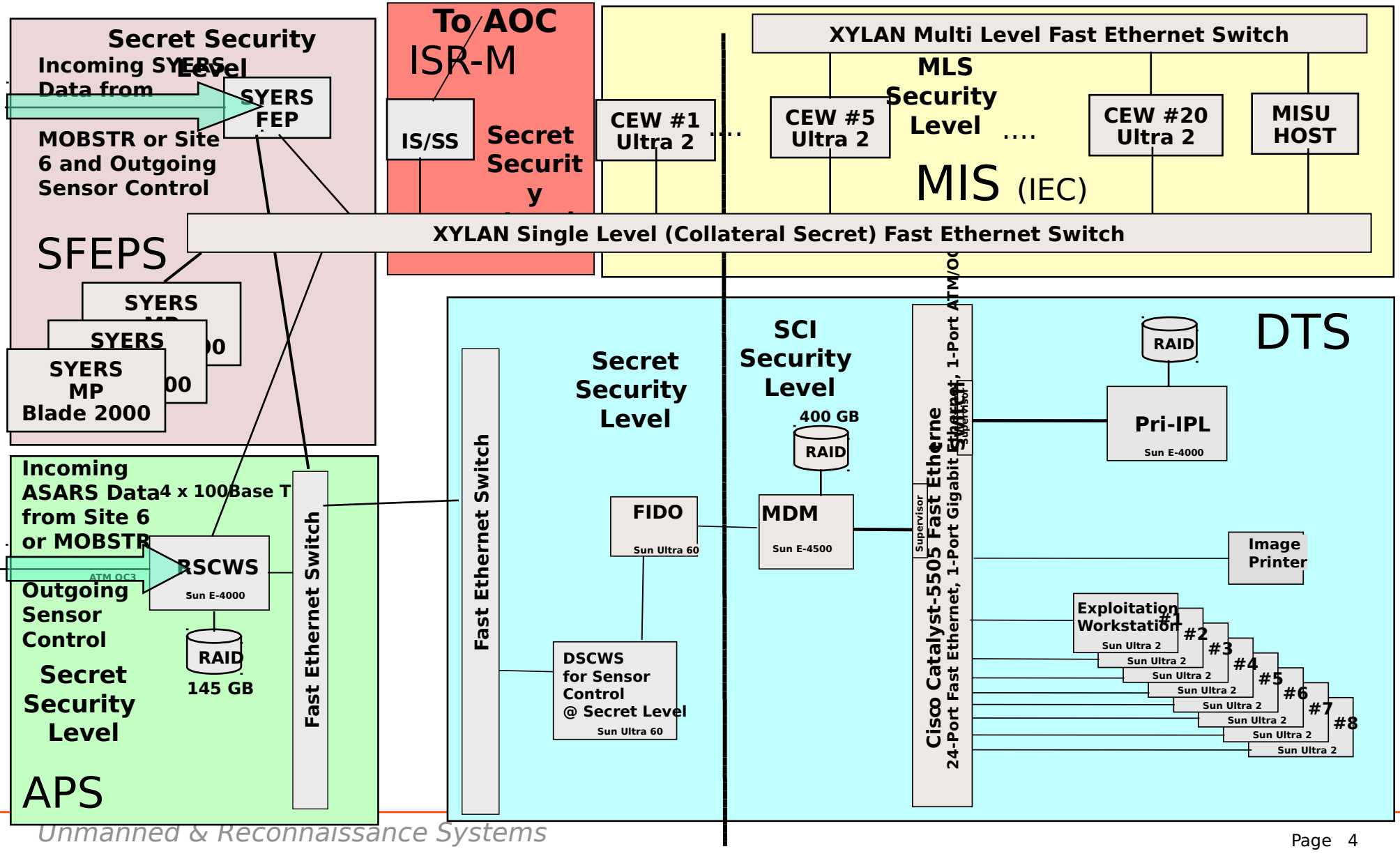
Agenda

- Current KIES, APS, DTS U-2 FE Versions and Capabilities
- Current Installations
- MASINT Upgrades
- PRISM Integration
- Update on Segment Interfaces
- Update on Korea DRs
  - ASARS-2A Spot 1A and Spot 3A Capabilities

Current Capabilities

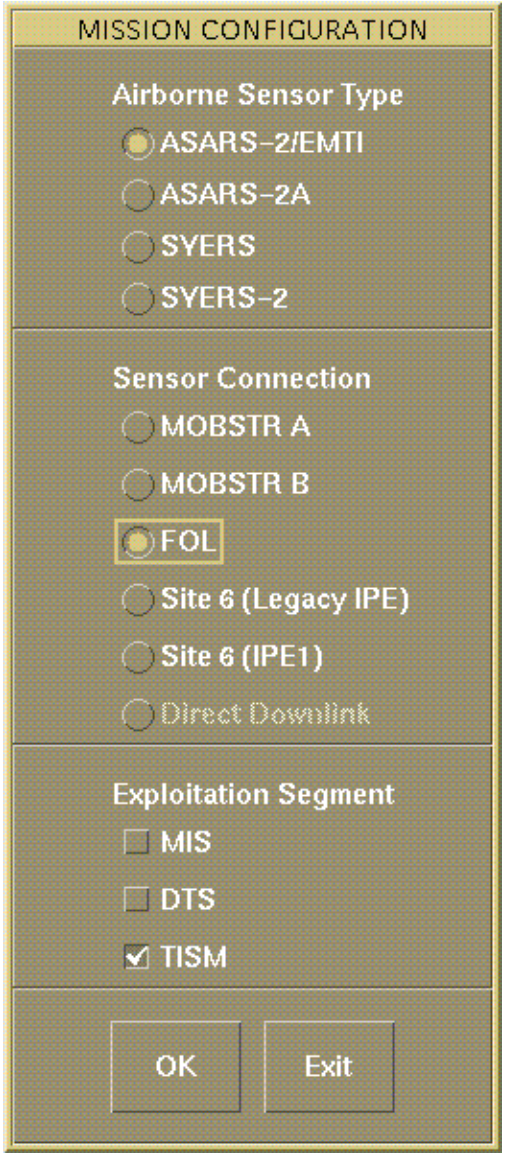
- **DGS-1**
  - **APS operational with v1.7.7.5 software**
  - **DTS U-2 Front End fielded with v1.7.7 software**
  - **APS v2.0 being installed to handle RSCWS Multi-Mission; waiting for CIES accreditation for operations**
- **DGS-2**
  - **APS operational with v1.7.7.5 software**
  - **DTS U-2 Front End fielded with v1.7.7 software**
  - **APS v2.0 installed to handle RSCWS Multi-Mission; waiting for CIES accreditation for operations**
- **DGS-4**
  - **APS fielded with v2.0 software**
- **Site-3**
  - **KIES operational with v1.8 software**
  - **PINES fielded with v1.7.7 software**
  - **ISR Warrior System currently being upgraded**
- **MOBSTR A and B**
  - **MOBSTR APS fielded with v1.7.7 software in Aug/Sep 03**
  - **MOBSTR A upgraded with v2.0 software, waiting for DGS-2 CIES accreditation for operations**
  - **MOBSTR B being installed with APS v2.0**
- **FOL**
  - **Being upgraded with APS v2.0**
  - **To be operational by 31 July**

Current DGS-1 Architecture

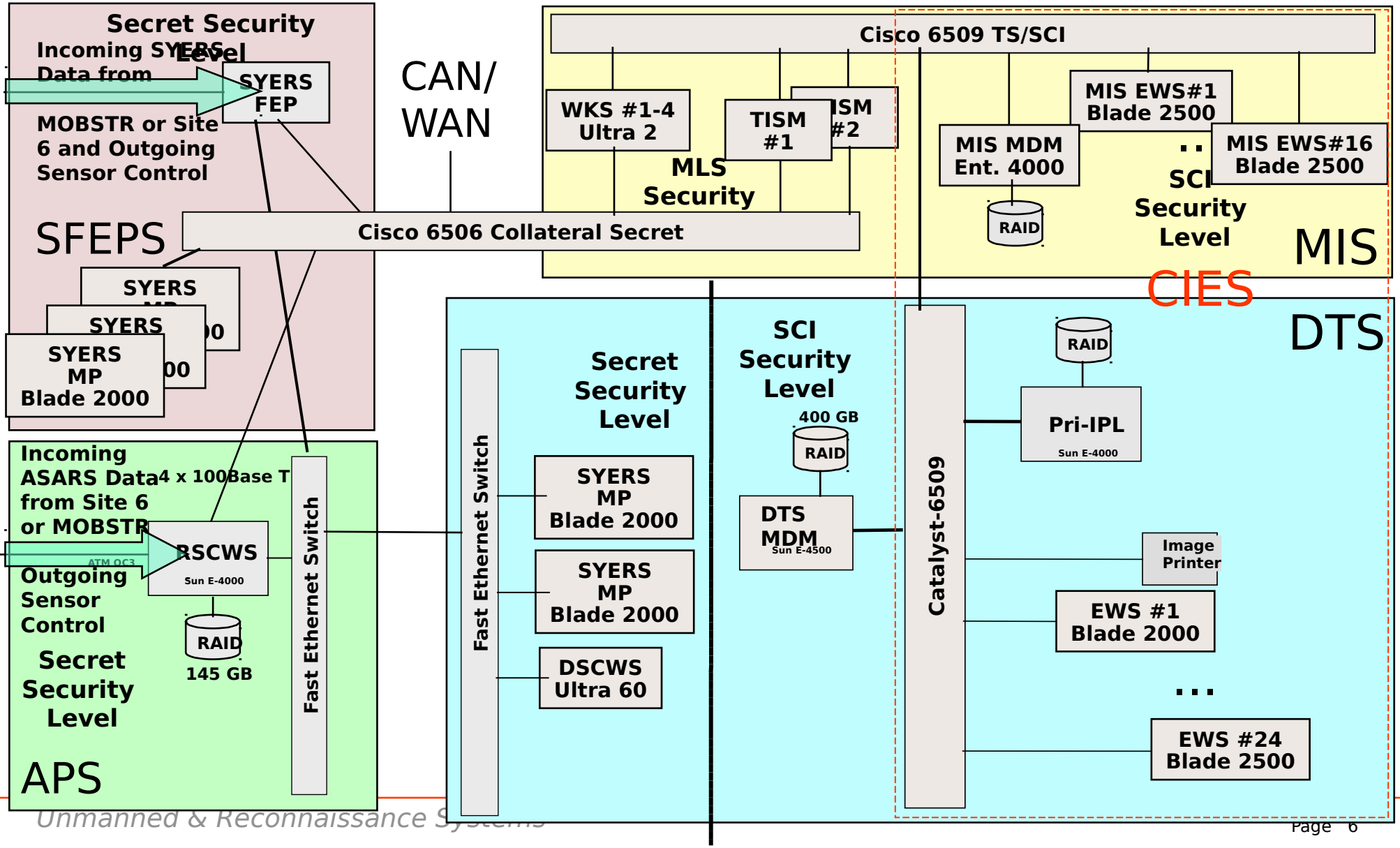


APS v2.0 Upgrades

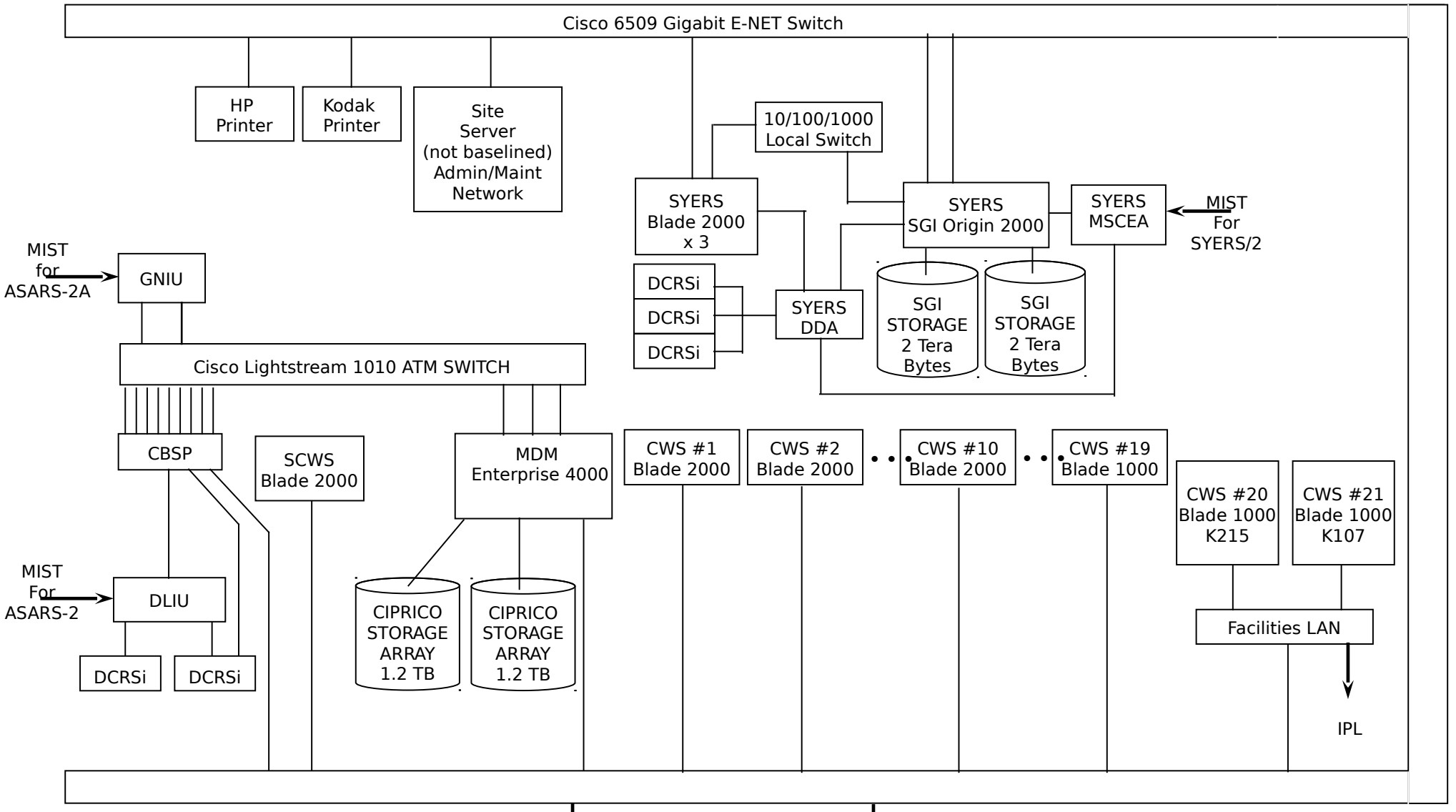
- **MOBSTR to DGS interfaces are upgraded for Multi-Mission operations**
  - **Not backwards compatible with APS 1.7.7 due to Multi- Mission Requirements**
  - **MOBSTR and DGS site need to both run APS v2.0**
- **All DGS sites will have APS v2.0 available by early August – operations dependent on CIES accreditation**
- **Multi-Mission Upgrade:**
  - **Choose which "front end" the RSCWS connects with through available comms**
  - **MOB A/B, FOL, Site 6 Threads, Direct Downlink @ DGS-2**
- **TISM Interfaces in addition to legacy MIS or DTS interfaces for CIES**
- **Global Hawk imagery ingestion through an ingest directory**



DGS-1/2 Architecture (Est. Aug 2004)



Site-3 KIES Architecture



Other Recent Installations

- **Installed RS-5 Global Hawk Situation Awareness through DAWS Pilot Monitor (PMON)**
  - **Currently supporting Global Hawk operations**
- **Installed Global Hawk Task Management capability Phase 1 at RS-5 with APS v2.0 at the Low baseline**
  - **In planning for Phase 2 at Beale and Reno at the High baseline level**
  - **Uses FIDO for Low to High GH image transfer**
- **dCSP providing U-2 mission monitoring capability at multiple sites**
- **RSCWS RAIDS being upgraded at DGS-1 and 2 with APS v2.1**
- **ASARS-2A Simulators developed and installed for Army and Navy**

MASINT Installations (1)

- **Updated with MASINT v1.2 (Completed – working minor DRs)**
  - **Updated the MASINT software baseline (to v 1.2) to be consistent across all MASINT installed DCGS sites & resolve security findings**
  - **Installed Mission Management software on SunFire**
  - **Integrated Ciprico FiberStore 2210 RAID at all locations providing local storage**
- **Currently tasked to install two additional MASINT workstations at DGS-1 through 5**
  - **MASINT v1.2 will be installed**
- **Replace older monitors with new MASINT monitors**

MASINT Installations (2)

- **SDR received: 10IS CAT II FB7029040005 (Accession number 643320)**
  - **MET Incompatibility with MOBSTR generated ASARS-2 complex data**
    - **NITF 2.1 per MIL-STD-2500B (excludes Notice 1, dated June 8, 1998)**
    - **SDE 0.91 (RMAG-9801-, dated 12/20/97)**
    - **CMPLXA (complex SDE) per Standardization Document Improvement Proposal (#98-005A, dated 3/5/98)**
  - **MET Expects SDE 1.0 and is compatible with ASARS-2A SDE 1.0 complex data**
- **Solution:**
  - **Patched MOBSTR software to output ASARS-2 complex files in SDE 1.0**
  - **Performed Mods under existing S&S contract/scope and incorporated into APS v2.0**
  - **Fielding with APS v2.0**

PRISM Integration

- **Planning tool for Resource Integration, Synchronization, and Management (PRISM) is current operational Collection Management Tool**
  - **Users enter collection management priorities and targets**
  - **PRISM provides target data and mission allocations to Common Sensor Planner (CSP)**
- **Automated interfaces were developed and fielded to work between PRISM, CSP, and IESS**
  - **CSP interfaces and data flows being upgraded to support increasing automation between IESS and PRISM**
- **Upgrade will be fielded as part of APS v2.1**

Ground Station Segment Interfaces

- **Sensor Inputs and Control:**
  - **Interfaces to Datalink: No Change**
  - **Interfaces to MOBSTR: Upgraded under v2.0 for Multi-Mission Capability**
  - **Interfaces to ETP: Upgraded under v1.7.7.5 for new IPE; Upgraded again under v2.0 for Multi-Mission Capability**
  - **Interfaces to FOL: Being upgraded under v2.0 for DGS-4**
- **Exploitation Outputs**
  - **Interfaces to DTS and MIS, being upgraded under v2.0 for CIES**
- **Interfaces to ISRM: No Change**
- **Interfaces to CMMA: New interface using ISRM ICD**
- **Interfaces to CAN/WAN: No Change**
- **Interfaces to PRISM: Upgraded under current tasking for APS v2.1**
- **No interface changes projected at KIES**

Ground Station Capability for ASARS-2A Spot 1A and Spot 3A

- **Currently fielded APS v1.7.7 provides end to end capabiltiy for ASARS-2A Spot 1A and 3A**
  - **From Sensor Planning, SCWS Imagery Display and Sensor Control, Exploitation Management and Exploitation**
- **APS Software Version 1.8 fielded to Site-3 (March ’04)**
  - **Makes CBSP more robust in handling ASARS-2A data to support ASARS-2A capability fielding**
  - **Updates were tested in the plant, tested at Palmdale, then installed and accreditated at Site 3**
    - **Developed along with sensor development**
- **APS 2.0 incorporates v1.8 capability - will be fielded to all DGS and MOB/FOL sites prior to sensor deployment**
- **Recommend closure for ASARS-2A, but keeping open for ETP until IPE upgraded to handle ASARS-2A Spot 1A / 3A**

Summary

- APS, KIES, and DTS U-2 FE support upgrades continue
- MASINT Cell fielding complete – upgrades for software version and additional workstations/monitors continue
- Supporting ASARS-2A upgrades for deployment
- Global Hawk Task Management Phase 2 to be installed at DGS-2 in August